MIDI MASTER

INSTRUCTION MANUAL

48K

INTRODUCTION

MIDI MASTER is a hard/software hybrid system to allow you
to use your Atari to control a synthesiser or drum machine
via MIDI. MIDI (Musical Instrument Digital Interface) is a
standard that allows information to be transfered between
synthesisers and other devices (A bit like RS232 for
computers) via a normal 5 pin DIN connector.
   The hardware side of MIDI MASTER consists of a lead with a
serial port connector at one end and two DIN plugs at the
other end, labelled 'I' and 'O'. These should be connected to
the MIDI IN and OUT sockets on the synthesiser. The other end
should be plugged in the back of the Disk drive or the Atari
   NOTE: If you own a tape recorder with two serial connectors
it is best to ignore the second connector and plug the MIDI
cable straight into the computer as MIDI data from a synth
can corrupt tape loading /saving.

   There are three basic application programs supplied with
MIDI MASTER on tape or disk. There is a sequencer package to
allow you to record your own tunes from the keyboard, a music
player package to let you play tunes that have been composed
in the normal way on the Music composer cartridge (Or the
Advanced Music system for disk owners) and a patch editor
(Well two actually!!) to allow patches to be edited and
stored on disk or tape.

MIDI SEQUENCER
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Loading:
   TAPE: The sequencer is recorded on the front side of tape
one. To load turn on the computer with both OPTION and START
keys pressed. Once the program has loaded it will run
straight away.
   DISK: To load the sequencer type 'L' and RETURN and then
type the filname 'SEQ' and RETURN. The program will then load
and run.
NOTE: There are some demonstration tunes on the disk for the
sequencer. These will have the extension '.SEQ'

The screen:
   The screen is divided into two sections; the status line at
the top showing the metronome time and the free memory, and
the status block, with a line for each track.
   The metronome is used to provide timing when recording and
provides an audiable click. The delay between each beat is
variable between 0.1s and 3.1s in .1s steps and is changed by
using the '<' and '>' keys. (Setting the time to zero will
disable the metronome)

   The main block consists of 8 lines, with each line showing
the paramaters for an individual track. These parameters are
changed by moveing the cursor over them and then typing a new
numeric value. The parameters are as follows:

REC: This parameter selects the MIDI channel that will
record onto the track. Its range is 00 to 16, with zero
disabling recording on the track.
PLY: This parameter selects the MIDI play channel. Again a
value of zero will disable play.
PGM: This parameter is the MIDI program number that will be
transmitted before any notes are played. Its range is 0 to
127.
TRP: This parameter allows the notes on a track to be
transposed up or down. Its range is -99 to +99. Note:To
change the sign use the Space bar.
REP: This parameter controls the number of repititions of a
track once it has played.
LEAD: This parameter allows you to delay the start of a
track. The lead in time is measured in 100ths of a second.
GAP: This parameter is like the LEAD but controls the time
interval between repetitions of a track.

Controls:
   There are six keys that control the sequencer. Their
functions are listed below.

SAVE (S):   This will save all eight tracks to tape or
disk. You will be asked to type in a filename.
LOAD (L):   This function is the opposite of the SAVE

function.
WIPE (W):   This function will wipe a single track.
Confirmation is requested to guard against accidental
erasure.
PLAY (P):   This function will play all enabled tracks
over MIDI. Play can be aborted by using the OPTION key.
RECORD (R):   This function will allow you to record from
MIDI. If the metronome is on then there will be an 8 beat
lead in before recording starts. As the tracks are only
monophonics you will have to enable multiple tracks to record
chords from an instrument. Any play enabled tracks that are
record disabled will play as accompaniment.
TIME (T):   This function only operates on the current
track, and allows you to retime the notes on that track by
tapping out the rhythm on any key. Otherwise it is identical
to RECORD.

THE MUSIC PLAYER
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Loading:

For tape owners the music player program is recorded on the
back side of tape number one. To load it turn on the computer
with the START and OPTION keys held down. The program will
run automatically. Remember to stop the tape after the
program has loaded because a demonstration tune has been
recorded afterwards from the Music Composer.

On disk there are two versions of the program, MPLAY for
Music Composer tunes and APLAY for Advanced Music System
tunes. To load either these type 'L' and press return and the
type the filename MPLAY or APLAY.

There are some demonstration tunes recorded on the disk.
The tunes for MPLAY have the extension '.MC' and the tunes
for APLAY have the extension '.AMS'.

When the program has loaded you will be presented with a
screen showing four options. These options are selected by
pressing their initial letter (which is highlighted on the
screen)

To load a tune press 'L' and type in the filename e.g. C:
for cassette or D:filename.extension for disk.

Once the tune has been loaded it can be played on you
synthesiser by pressing 'P'. Once the tune has started
playing it can be stopped at any time by pressing the OPTION
key.

If the tune is playing at the wrong speed you can change
the tempo by pressing 'T' and entering a new value. The
larger the value is, the slower the tune will play.

There are two modes that the tune can be played in, MONO
and POLY. You can switch between the two modes by pressing
the 'S' key. NOTE: When you are in POLY mode the line will
read 'SELECT MONO MODE' and when you are in MONO mode the
line will read 'SELECT POLY MODE'

POLY mode means that the 4 voices are sent over MIDI
channel #1 whereas MONO mode means they are sent over MIDI
channels #1 to #4 respectively. This is ideal for use with
more than one synthesiser, or a multitimbral synthesiser like
the casio CZ101 in SOLO mode.

LIMITATIONS
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There are some limitations with this program which are
partly due to incompatabilities between the way MIDI handles
notes and the way the Atari handles them.

Firstly the Music players do not support velocity
sensitivity infomation at the moment. This is likely to be
rectified in future versions of the programs.

Also certain tunes composed using the Advanced music System
use the fact that the sound generators are continuously on to
produce envelope effects by playing identical notes with
different volumne values in quick succesion. Because MIDI
treats notes as discrete events this means that single notes
with 'envelopes' will come out as rapid trills on a

synthesiser connected to the MIDI. Also, because neither of
the music systems support enveloping ,and thus dont have
different sounds, the music player programs do not allow MIDI
program changes to occour during the playing of a tune. To
solve this problem Music player programs will eventually be
produced to support more advance programs such as 'BANK
STREET MUSIC WRITER' and 'ACTIVISION MUSIC STUDIO'

CZ PATCH EDITOR
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Loading:
   TAPE: The CZ Patch editor is recorded on the front side of
tape number two. To load it turn on the computer with both
OPTION and START keys pressed. The program will run
automatically once it has loaded and you can then unplug the
tape recorder and plug in the MIDI interface.
   DISK: To load the patch editor off of disk type 'L' and
press return and then type in the filename 'CZV'.

   This program will allow you to create new voices or edit
existing voices for your Casio CZ101, CZ1000, CZ3000, CZ5000,
or CZ230, without using the synth itself. For owners of the
CZ230 this is an exceptionally usefull program as the only
way that it is possible to create a new voice on that
particular model is via MIDI, so this program effectively
turns a non programmable preset keyboard into a fully
programmable synth. Once voices have been created they can be
stored on cassette or disk for safekeeping.
   Once the program has loaded the screen will appear. This
will show all of the parameters involved, albeit in a
slightly different arrangement to the way patches are
normally printed in magaizines etc.

Talking to the Synth:
   If you examine the screen you will find, inbetween the two
lines, a two digit number with arrows above and below it.
This number will change as you select different presets on
the synth and represents the current memory pointer.
   When you press the OPTION key the editor will fetch the
patch data corresponding to this number from the synth, and
it will display that patch on the screen for you to change or
examine. Once you have edited the patch you can transmit it
to the synth by pressing the SELECT key. This causes the
patch to be written to the internal buffer on the synth ready
to be written to memory or cartridge.
NOTE FOR CZ230 OWNERS: With this model there are only 4
programmable memories, numbers 96 to 99. If the memory
pointer is in the range 97 to 99 then pressing SELECT will
write the patch data directly to the relevent memory,
otherwise the patch data is written to memory number 96, so
in order to hear your changes you must select a preset in the
range 96 to 99 on the synth.

Editing Voices:
   It is extremely simple to change patch data for a voice
using this program. Firstly you must position the cursor (The
Orange Blob on the screen) over the required paramater by
using the cursor keys. NB: To make movement simpler it is not
necessary to use the CONTROL key, just the cursor keys on
their own.
   For parameters such as the Line Select, Modulation, or

Octave, pressing the RETURN key will cycle through the
options. For the other parameters the numbers can be typed in
directly. Because the cursor keys are the same as the '+' and
'-' keys on the keyboard you must use the 'p' and 'm' keys
instead to change the sign on the Detune parameter. Also the
keys 's' and 'e' can be used to place the sustain and end
markers into the envelopes.
    At any time you can initialise a parameter by pressing the
ESCAPE key, this will produce the same effect as the INIT
button on the Synth.

Storage:
    To save or load a patch all you need to do is press the
START key. The screen will change to a prompt saying
'COMMAND:' and an underline cursor. (If you are a tape owner
now is the time to unplug the MIDI and connect the tape deck)
The format of a command is very simple, you type either 'L'
for load or 'S' for save and then type 'C' or 'D' (Cassette
or Disk) and filename.extension for a disk file. If a
mistake is made at any time pressing ESCAPE will return to
the main screen. Once the command has been entered pressing
RETURN will do it.

DX100 PATCH EDITOR
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This program will allow owners of the DX100, DX21, and DX27
keyboard synthesisers to transfer patch infomation between
the synth and the computer, and then edit the parameters on
the computer. As well as supporting single voice transfer the
program will also allow the bulk transfer of all internal
memories to or from Disk or Tape.

Loading:
    TAPE: The DX Patch editor is recorded on the back side of
tape two. To load it turn on the computer with both OPTION
and START pressed. The program will execute automatically.
    DISK: To load the Disk version type 'L' and then RETURN and
then type the filename 'DXV' and return. The program will
then load.

The Options:
    When the program has loaded you will see a line saying
'EDIT VOICE' this is the current option. This can be changed
by using the OPTION and SELECT keys. The other options are
Load and Save voice, and Load and Save bulk voices. To select
an option you must then press the START key. For the file
options you must then type in a filename.

Editing Voices:
    Underneath the option is a list of parameters. The current
parameter is highlighted. To select a paramater use the
cursor up and down keys (without pressing CONTROL) to move
through the list. To actually change a parameter the option
must be selected to 'EDIT VOICE' and the START key pressed.
The new value for the parameter can then be typed in.
    NOTE: Unlike the CZ Patch editor, data is automatically
transmitted to and from the synth every time you either
change the preset on the synth, or change a parameter on the
computer. Thus you can hear the changes you make straight
away. But the changes are only transmitted to the internal
buffer on the synth. You have to store them in internal
memory yourself.

Problems:
    This version of the program does have one or two bad
points. Firstly the parameters are all unsigned numeric, raw
MIDI data. Consult the Voice parameters (VCED format) table
at the back of the manual for clarification. Later versions
will correct this. Another problem is that the tape save/load
operations are superfluous because the synth already has a
tape interface that records at higher speed than the ATARI
will.

GUARANTEE

Your new 2 bit systems product has been fully tested and is guaranteed against defective materials and workmanship for a period of 6 months from the date of purchase.

During the guarantee period any defects in parts or workmanship will be repaired free of charge.Please pack your unit carefully as no liablity can be accepted for damage or loss during transit.Also include a copy of the receipt and state where you purchased it.

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